Code No: 07A10491 **Set No. 1**

I B.Tech Regular Examinations, May/Jun 2008
ENGINEERING DRAWING
(Common to Electronics & Communication Engineering, Electronics & Control Engineering and Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as 2/3. Also draw normal and tangent to the curve at a point 40 mm from the directrix. [16]

2. (a) A line AB is 75 mm long. A is 50 mm in front of VP and 15 mm above HP. B is 15 mm in front of VP and is above HP. Top View of AB is 50mm long. Draw and measure the front view. Find the true inclinations.
   (b) A line measuring 80 mm long has one of its ends 60 mm above HP and 20 mm in front of VP. The other end is 15 mm above HP and in front of VP. The front view of the line is 60 mm long. Draw the top view. [8+8]

3. (a) A pentagonal plate of 35 mm side is perpendicular to V.P and parallel to H.P. One of its edges is perpendicular to V.P. Draw its projections.
   (b) An equilateral triangular lamina of side 30 mm is parallel to H.P. and perpendicular to V.P One of its sides is 20 mm in front of V.P. and 30 mm above H.P. Draw its projections. [8+8]

4. (a) A cylinder base 35 mm diameter and axis 60 mm long lies with one of its generators on H.P. such that its axis is parallel V.P. Draw its projections.
   (b) Draw the projections of cube of 40 mm side, resting with a face on H.P. such that one of its vertical faces is inclined at 30^0 to V.P. [8+8]

5. Hexagonal Pyramid side of base 30 mm and axis 50 mm long rests with one of the corners of its base on H.P. Its axis is inclined at 35^0 to H.P. and 45^0 to V.P. Draw its projections. [16]

6. The frustum of a hexagonal pyramid side of top and bottom 25 mm and 40 mm respectively with axis 50 mm height rests on its base in H.P. Its axis is parallel to V.P. Draw the orthographic projections and provide the isometric view of the solid. [16]

7. Two views of a casting are shown in figure 7. Draw the isometric view of the casting (All dimensions are in mm). [16]

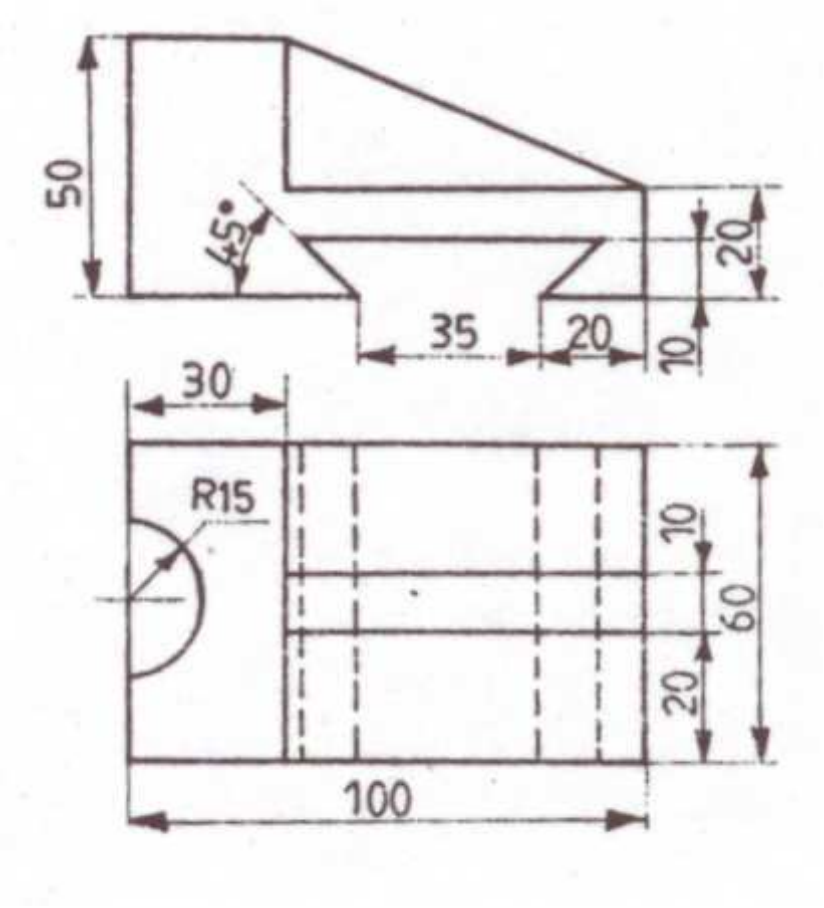

Figure 7

8. Draw the front view, top view, right and left side views of the object shown in figure 8 (All dimensions in mm). [16]

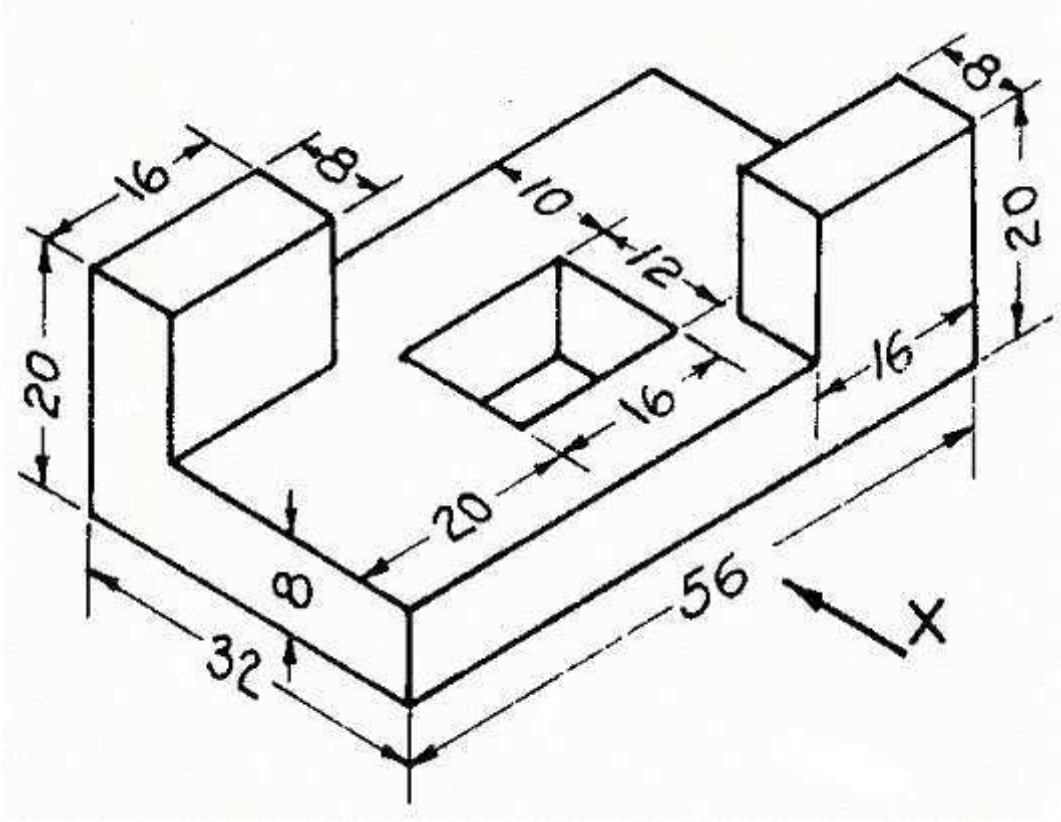

Figure 8

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Code No: 07A10491 **Set No. 2**

I B.Tech Regular Examinations, May/Jun 2008
ENGINEERING DRAWING
(Common to Electronics & Communication Engineering, Electronics & Control Engineering and Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. A fixed point F is 7.5 cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Name the curve. Draw normal and tangent at a point 6 cm from F. [16]

2. (a) A line AB 40 mm long is parallel to VP and inclined at 35^0 to HP. The end A is 15 mm above HP and 20 mm in front of VP. Draw the projections of the line and find its traces.
   (b) A line MN 50 mm long is parallel to VP and inclined at 45^0 to HP. The end M is 20 mm above HP and 15 mm in front of VP. Draw the projections of the line and finds its traces. [8+8]

3. (a) Draw the projections of a circle of 5 cm diameter, having its plane vertical and inclined at 30^0 to V.P. Its center is 3 cm above the H.P. and 4 cm in front of the V.P.
   (b) A regular pentagon of 35 mm side has one side on the ground. Its plane is inclined to H.P at 75^0 and perpendicular to V.P Draw its projections. [8+8]

4. (a) A cube of 30 mm long edges lies with one of its square faces on H.P. Such that one of its vertical faces is inclined at 30^0 to V.P. Draw its projections.
   (b) Draw the projections of a pentagonal pyramid axis 60 mm long, base 30 mm side having base on the ground and one of edges of base inclined at 45^0 to V.P. [8+8]

5. A cone of base diameter 50 mm and axis 70 mm long rests with one of the points on the circumference of its base on H.P. Its axis is inclined at 35^0 to H.P. and 45^0 to V.P. Draw its projections. [16]

6. The frustum of a hexagonal pyramid side of top and bottom 25 mm and 40 mm respectively with axis 50 mm height rests on its base in H.P. Its axis is parallel to V.P. A sphere of diameter 40 mm is placed centrally on top of the prism. Draw the orthographic projections and provide the isometric projection of the solid. [16]

7. Two views of a casting are shown in figure 7. Draw the isometric view of the casting (All dimensions are in mm). [16]

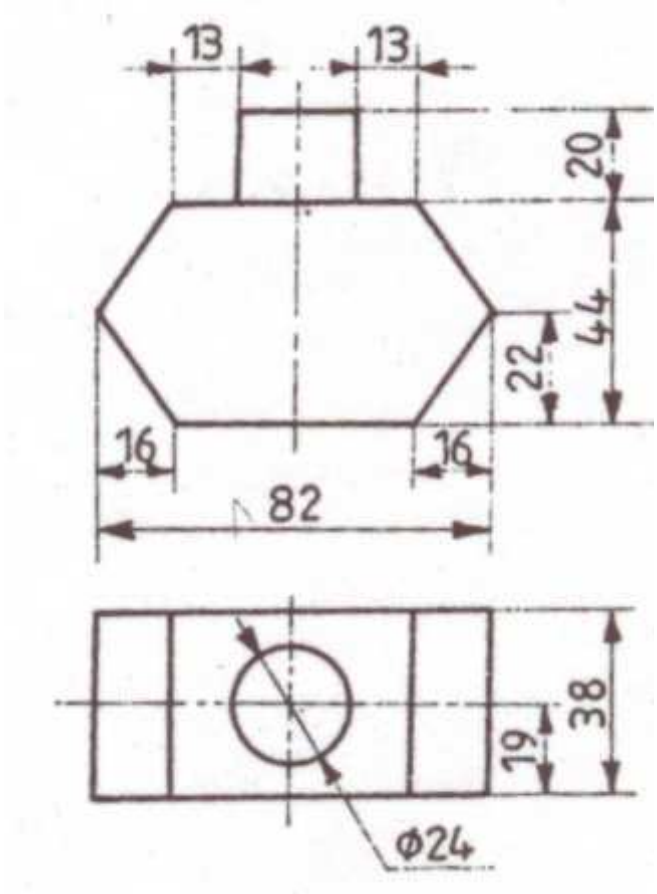

Figure 7

8. Draw the elevation, plan and left and right views of the part shown in the figure 8 (dimensions in mm). [16]

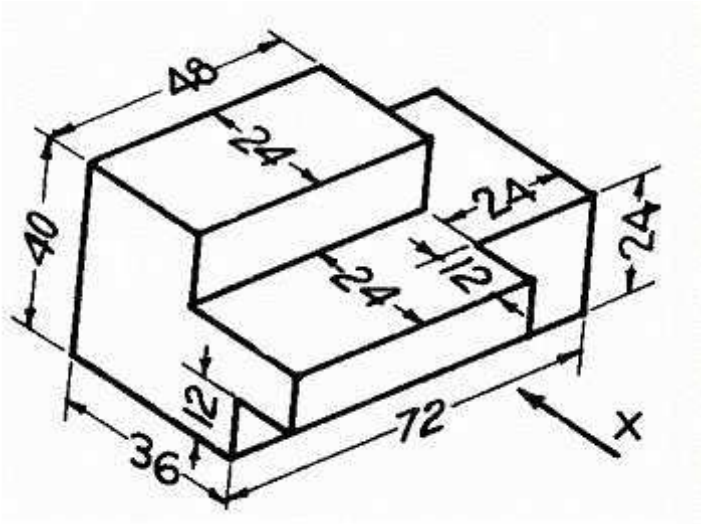

Figure 8

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Code No: 07A10491 **Set No. 3**

I B.Tech Regular Examinations, May/Jun 2008
ENGINEERING DRAWING
(Common to Electronics & Communication Engineering, Electronics & Control Engineering and Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. A fixed point F is 7.5 cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Name the curve. Draw normal and tangent at a point 6 cm from F. [16]

2. (a) The line EF 60 mm long is in VP and inclined to HP. The top view measures 45 mm. The end E is 15 mm above HP, Draw the projections of the line. Find its inclination with HP.
   (b) A line GH 45 mm long is in HP and inclined to VP. The end G is 15 mm in front of VP. The length of the front view is 35 mm. Draw the projections of the line. Determine its inclination with VP. [8+8]

3. (a) Draw the projections of a regular pentagon of 30 mm side, with its surface making an angle of 50^0 with H.P. One of the sides of the pentagon is parallel to H.P and 15 mm away from it.
   (b) A pentagon of 30 mm sides, has one of its corners on HP and Its plane is inclined at 65^0 to VP and perpendicular to HP. Draw its projections. [8+8]

4. A square prism, side of base 30 mm and axis 45 mm long lies on H.P. such that its axis is parallel to both H.P. and V.P., Draw the top and front views of the prism when
   (a) it lies with one of its rectangular faces on H.P. and
   (b) it lies with one of its longer edges on H.P. [16]

5. Draw the projections of a cone, base 45 mm diameter and axis 60 mm long, when it is resting on the ground on a point of its base circle with the axis making an angle 30^0 with the H.P. and 45^0 with the V.P. [16]

6. A hexagonal prism, side of base 25 mm and axis 50 mm long rests on its base in H.P. Its axis is parallel to V.P. Draw the orthographic projections and provide the isometric projection of the solid. Show the isometric scale. [16]

7. Two views of a casting are shown in figure 7. Draw the isometric view of the casting(All dimensions are in mm). [16]

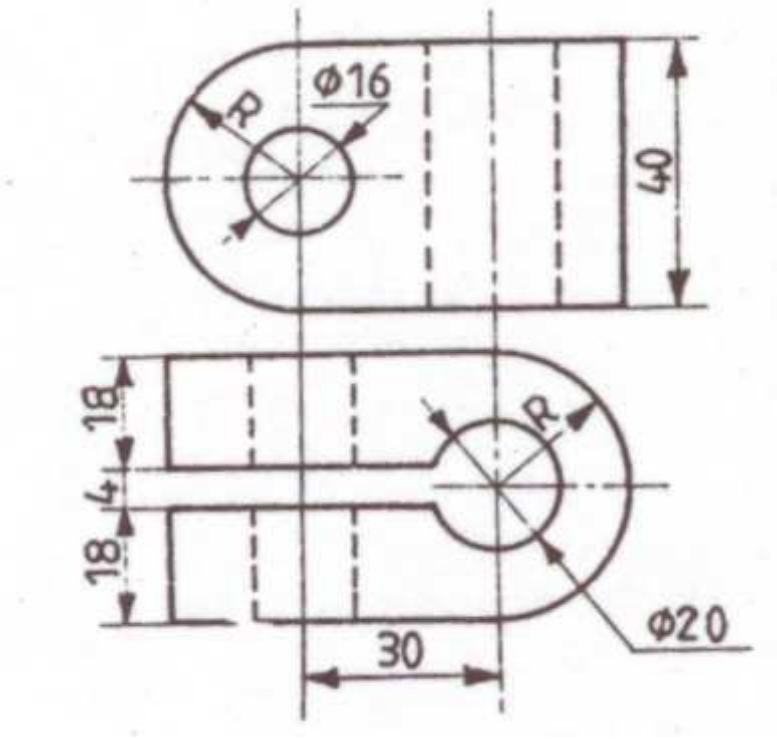

Figure 7

8. Draw the front view, top view and right side view of the object shown in figure 8 (All dimensions in mm).

[16]

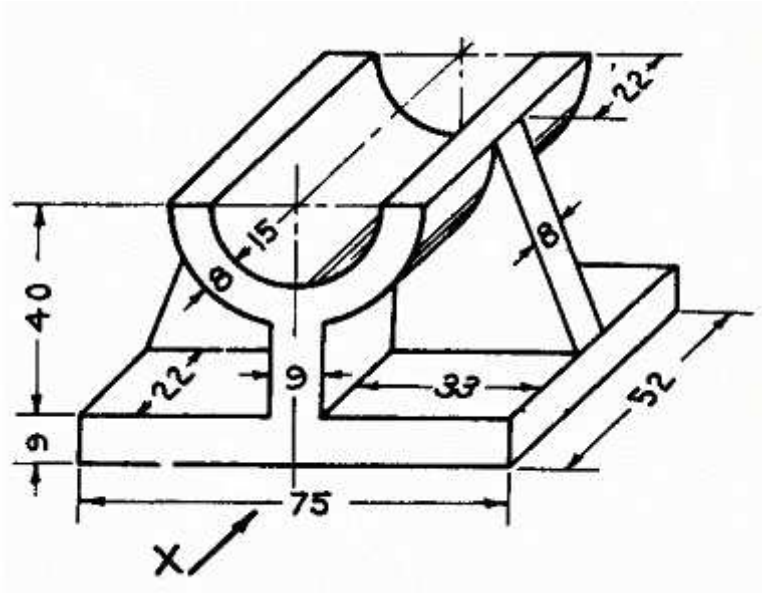

Figure 8

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Code No: 07A10491 **Set No. 4**

I B.Tech Regular Examinations, May/Jun 2008
ENGINEERING DRAWING
(Common to Electronics & Communication Engineering, Electronics & Control Engineering and Bio-Technology)

Time: 3 hours **Max Marks: 80**

Answer any FIVE Questions
All Questions carry equal marks

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1. Two fixed points A and B are 100 mm apart. Trace the complete path of a point P moving (in the same plane as that of A and B) in such a way that the sum of its distances from A and B is always equal to 125 mm. Name the curve. Draw another curve parallel to and 25 mm away from this curve. [16]

2. (a) A line AB is 30 mm long and inclined at 30^0 to VP and parallel to HP. The end A of the line is 15 mm above HP and 20mm in front of VP. Draw the projections.
   (b) A line CD of 100 mm length is inclined at 30^0 to HP and 45^0 to VP. The point A is 15 mm above HP and 20mm in front of VP. Draw the projections of the line. [6+10]

3. (a) A square lamina of 40 mm side is perpendicular to H.P One of its sides is 20 mm above H.P and 15 mm in front of V.P. Draw its projections.
   (b) Draw projections of a square lamina of 40 mm side that has a corner on H.P. and 20 mm in front of V.P. All sides equally inclined to H.P and parallel to V.P. [8+8]

4. (a) Square pyramid base 40 mm side, axis 65 mm long has base in V.P. one edge of base inclined to 30^0 to H.P. and corner contained by that edge is on H.P. Draw its projections.
   (b) Draw the projections of a hexagonal prism having one of its rectangular faces parallel to the H.P. Its axis is perpendicular to the V.P. and 3.5 cm above the ground. [8+8]

5. A triangular prism of base side 45 mm and length of axis 75 mm has a corner in the H.P. the face opposite to that corner makes 50^0 to the H.P. while the axis of the solid makes 30^0 to the V.P. obtain the two views of the solid. [16]

6. A cone radius of base 25 mm and axis 50 mm long rests with one of its base edges on H.P. Its axis is parallel to V.P. Draw the orthographic projections and provide the isometric projection of the solid showing the tip towards viewer. Show the isometric scale. [16]

7. Three views of a model, in third angle projection are shown in in figure 7. Draw the isometric view of the casting (All dimensions are in mm). [16]

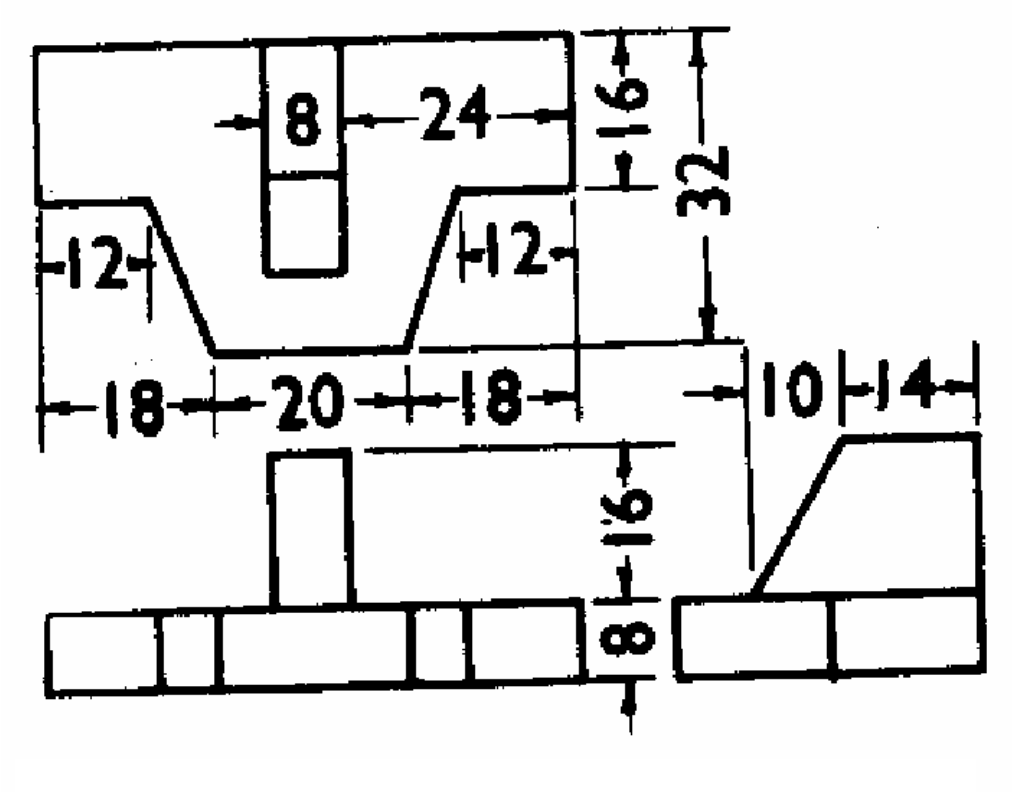

Figure 7

8. Draw the elevation, plan and left and right views of the bracket shown in the figure 8 (All dimensions are in mm). [16]

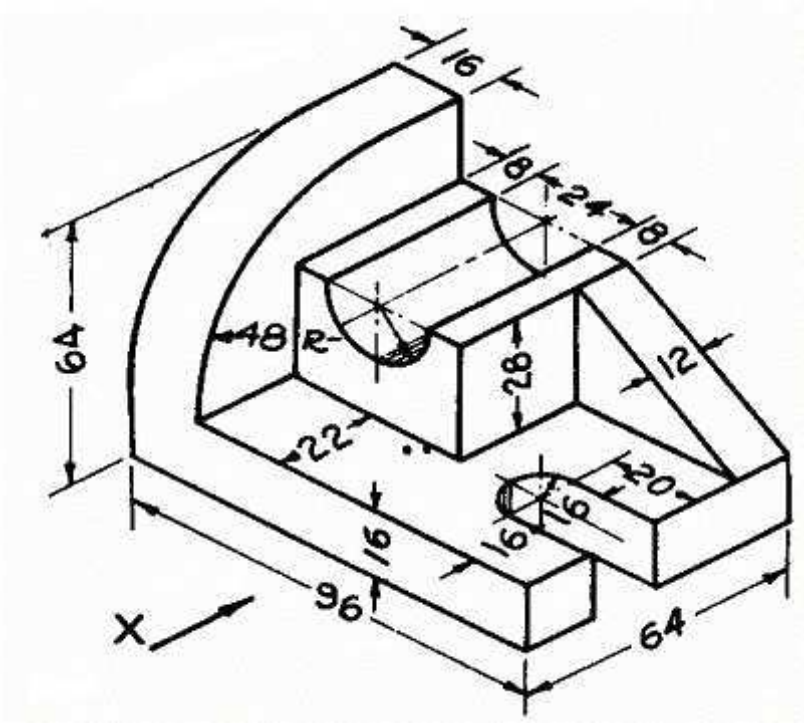

Figure 8

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